

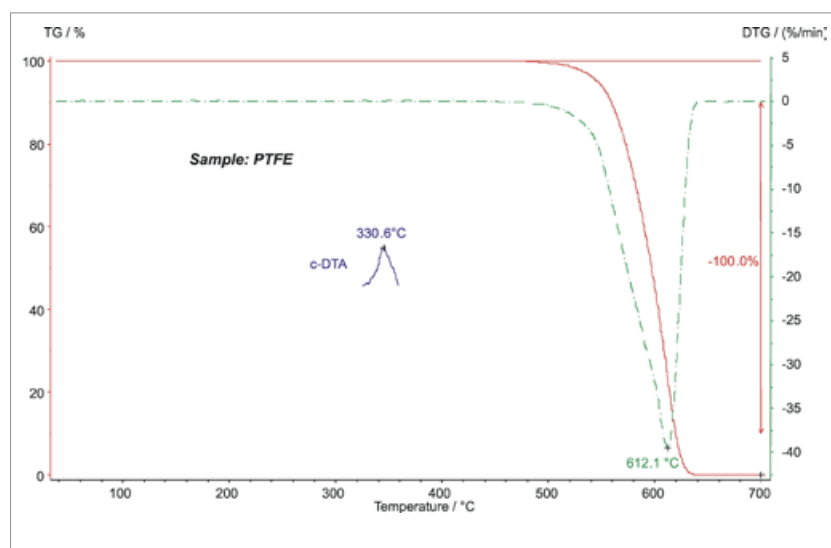
APPLICATION SHEET

POLYMERS – POLYMER MANUFACTURING

POLYTETRAFLUOROETHYLENE

PTFE is well-known under the brand name Teflon® which is used as a non-stick coating for pans. Like other fluoropolymers, PTFE has an exceptionally high thermal and thermo-oxidative stability and is completely solvent-resis-

tant, only certain fluorinated solvents dissolving it at temperatures near its melting temperature. It is also useful as a high-temperature and fireresistant electrical insulation material.



Instrument

TG 209 **F3 Tarsus**®

Test Conditions

| | |
|-------------------|--------------------------------|
| Temperature range | |
| Heating rate | 35 ... 700°C |
| Atmosphere | 20 K/min |
| Sample mass | Nitrogen at 20 ml/min |
| Crucible | 9.67 mg |
| Sensor | Al ₂ O ₃ |

Results

Degradation of polyoxymethylene occurred completely at 612°C (peak temperature of the DTG curve). A peak was detected in the calculated DTA (c-DTA®) curve at 330.6°C. It is due to melting of the sample.